

Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.



THE

BOTANICAL GAZETTE

EDITORS:

JOHN M. COULTER, The University of Chicago, Chicago, Ill.

CHARLES R. BARNES, The University of Chicago, Chicago, Ill.

J. C. ARTHUR, Purdue University, Lafayette, Ind.

ASSOCIATE EDITORS:

Casimir DeCandolle, Geneva.

J. B. DeToni, University of Padua.

ADOLF ENGLER, University of Berlin.

L'École de Pharmacie.

ROBERT A. HARPER, University of Wisconsin.

JINZŌ MATSUMURA, Imperial University, Tōkyō. FRITZ NOLL,

University of Bonn.

VOLNEY M. SPALDING, University of Michigan.

ROLAND THAXTER, Harvard University.

WILLIAM TRELEASE,

Missouri Botanical Garden.

H. MARSHALL WARD, University of Cambridge.

EUGEN. WARMING, University of Copenhagen

VEIT WITTROCK, Royal Academy of Sciences, Stockholm.

VOLUME XXIX JANUARY—JUNE, 1900

WITH TWENTY-NINE PLATES AND TWENTY-SEVEN FIGURES IN THE TEXT

CHICAGO, ILLINOIS
PUBLISHED BY THE UNIVERSITY OF CHICAGO

PRINTED BY The University of Chicago Press CHICAGO

TABLE OF CONTENTS.

The mechanism of root curvature (with figures), - James B. Pollock	PAGE I		
, , ,			
Studies in the development of the pollen grain in Symplocarpus foetidus and Peltandra, (with plates I and II), B. M. Duggar	81		
A contribution to the life history of Silphium (with plates			
III–X), William Dayton Merrell	99		
The haustoria of the Erysipheæ (with plates XI and XII), - Grant Smith	153		
Studies on the geotropism of stems, Edwin Bingham Copeland	185		
The structure and development of the sporophylls and sporangia of Isoetes (with plates XIII-XX), - R. Wilson Smith 225,	323		
Note on the structure and reproduction of Compsopo-			
gon (with plate XXI), Roland Thaxter	259		
Cultures of Uredineæ in 1899, J. C. Arthur	268		
The fertilization of Albugo candida (with plate XXII), Bradley Moore Davis	297		
Comparative study of the development of Trichurus			
spiralis and Stysanus stemonites (with plates XXIII			
and XXIV), H. Hasselbring	312		
Botrytis and Sclerotinia: their relation to certain plant diseases and to each			
other (with plates XXV-XXVII and three figures), - Ralph E. Smith	369		
A contribution to the life history of Quercus (with plates XXVIII and XXIX), Abram H. Conrad	408		
Flora of the White Lake region, Michigan, and its ecological relations (with			
map), E. J. Hill	419		
Briefer Articles—			
Botanical bibliography, W. G. Farlow	64		
An important work on garden botany, Wilhelm Miller	134		
The Society for plant morphology and physiology - Yale			
meeting, W. F. Ganong	135		
Cerastium arvense oblongifolium, E. J. Hill	141		
A new violet, Aven Nelson	143		
The nutation of Helianthus, John H. Schaffner	197		
Pteris cretica in Illinois, J. Schneck	20 I		
Origin of the thallus, alternation of generations, and the			
phylogeny of Cutleria, C. Sauvageau	277		
v [VOLUME X	XIX		

	Some plants of New Mexico, T. D. A. Cocker	ell 280
	Physiological Notes.—I. Soja beans for imbibition experiments. II. Gas diffusion through the cuticle. III. An artificial endoderm	
	cell. IV. The self-registration of photosynthesis (with three figure Edwin Bingham Copeland	
	A new species of Puccinia H. Harold Hus	
	The taxonomic value of the staminate flowers of some of the oaks (with eight figures), - W. W. Rowlee and Susie P. Nich.	ols 353
OPEN	n Letters—	
	What is prunus institia? F. A. Wau	gh 144
	The research station of the Royal Botanic Gardens of Ceylon,	
	John C. Wil	llis 202
	Pattern flowers and metamorphosis, H. H. Rus	sby 205
	Professor W. Pfeffer and the active albumin, - Oscar Los	ew 357
Curr	RENT LITERATURE —	

News-79, 150, 223, 296, 367, 447.

DATES OF PUBLICATION.

"Notes for Students" are indexed under author's name and subjects.

For titles see index under author's name and Reviews. Papers noticed in

No. 1, January 31; No. 2, February 20; No. 3, March 26; No. 4, April 30; No. 5, May 25; No. 6, June 30.

ERRATA.

- P. 17, line 16 from above, for Weisner read Wiesner.
- P. 61, No. 34, for Wurzelnspitze read Wurzelspitze.
- P. 83, line 11 from above, for nucleus read nucleolus.
- P. 89, line 18 from above, for adundant read abundant.
- P. 91, line 20 from above, for cytolasm read cytoplasm.
- P. 108, line 16 from below, for 26 read 27.
- P. 115, line 7 from above, for soons read soon.
- P. 121, line 13 from above, for plate V read plate IX.
- P. 126, second line from bottom, for periblem, terminal read periblem-terminal.
- P. 135, lines 12 and 15 from above, for des read de.